

Axiom Plus Osprey in Winter Wheat.

Trial ID: 11-ARC-9-W90 Location: Agronomy Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
City State Zip Country: Carbondale IL 62901 USA
Trial Status: SETUP **Initiation Date:** 10-7-10

Objectives: Evaluate the efficacy of Axiom and Osprey on winter annual grass and broadleaf weeds in winter wheat.

Crop 1: TRZAW Winter wheat **Variety:** P25R47
Planting Method: SEEDED **Planting Date:** 10-7-10
Rate, Unit: 1.4 mil. S/A **Depth, Unit:** 1 IN
Row Spacing, Unit: 7.5 IN

Plot Width, Unit: 15 FT **Site Type:** FIELD
Plot Length, Unit: 30 FT **Tillage Type:** NO-TILL
Replications: 3 **Study Design:** Randomized Complete Block

Prior Crops, Year
 1. ZEAMD 2010

Field Prep./Maintenance: Fall: N 27 LB/A, P205 69 LB/A, K20 0 LB/A as DAP

% OM: 1.6 **Texture:** SILT LOAM
pH: 6.2 **Soil Name:** STOY
CEC: 7.4 **Fert. Level:** P1: 66 LB/A, K: 274 LB/A

Application Description

	A	B
Application Date:	10-29-10	4-5-11
Time of Day:	11:15 am	10:30 am
Application Method:	Spray	Spray
Application Timing:	SPK-3LF	SPRING
Application Placement:	BROFOL	BROFOL
Applied By:	JK	NRJ
Air Temperature, Unit:	53 F	50 F
% Relative Humidity:	34	43
Wind Velocity, Unit:	3 MPH	4 MPH
Wind Direction:	NW	W
Dew Presence (Y/N):	N	N
Soil Temperature, Unit:	47 F	44 F
Soil Moisture:	NORMAL	NORMAL
% Cloud Cover:	5	0

10/29/2010 04/05/2>

Pest Stage At Each Application

Application Date: 10-29-10 4-5-11

Application Equipment

Appl. Equipment:	CO2 sprayer	CO2 sprayer
Operating Pressure:	30 PSI	30 PSI
Nozzle Type:	Flat fan	Flat fan
Nozzle Size:	XR 8002	XR 8002
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA

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						TRZAW				LAMAM							
						11-19-10	4-5-11	4-19-11	5-3-11	11-19-10	4-5-11	4-19-11	5-3-11				
						Injury	Injury	Injury	Injury	Control	Control	Control	Control				
						Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent				
						21 DAA	0 DAB	14 DA-B	35 DA-B	21 DAA	0 DA-B	14 DA-B	35 DA-B				
						21 DA-A	158 DA-A	172 DA-A	186 DA-A	21 DA-A	158 DA-A	172 DA-A	186 DA-A				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code								
1	NONTREATED									0.0 a	0.0 a	0.0 c	0.0 c	0.0 d	0.0 d	0.0 c	0.0 c
2	AXIOM	68	WG	0.255	lb ai/a	6	oz/a	SPK-3LF A		0.0 a	0.0 a	0.0 c	0.0 c	16.7 c	56.7 bc	33.3 b	60.0 b
3	AXIOM	68	WG	0.425	lb ai/a	10	oz/a	SPK-3LF A		0.0 a	0.0 a	0.0 c	0.0 c	28.3 c	55.0 c	33.3 b	62.3 b
4	OSPREY	4.5	WG	0.0134	lb ai/a	4.76	oz/a	SPRING B				10.0 ab	18.3 a			58.3 ab	90.0 a
4	ACTIVATOR 90	100	SL	0.5	% v/v	0.5	% v/v	SPRING B									
4	28% UAN	100	SL	4	pt/a	4	pt/a	SPRING B									
5	AXIOM	68	WG	0.255	lb ai/a	6	oz/a	SPK-3LF A		0.0 a	0.0 a	15.0 a	11.7 ab	30.0 c	50.0 c	65.0 ab	91.7 a
5	OSPREY	4.5	WG	0.0134	lb ai/a	4.76	oz/a	SPRING B									
5	ACTIVATOR 90	100	SL	0.5	% v/v	0.5	% v/v	SPRING B									
5	28% UAN	100	SL	4	pt/a	4	pt/a	SPRING B									
6	AXIOM	68	WG	0.425	lb ai/a	10	oz/a	SPK-3LF A		0.0 a	0.0 a	15.0 a	16.7 a	50.0 b	86.0 ab	59.7 ab	86.3 a
6	OSPREY	4.5	WG	0.0134	lb ai/a	4.76	oz/a	SPRING B									
6	ACTIVATOR 90	100	SL	0.5	% v/v	0.5	% v/v	SPRING B									
6	28% UAN	100	SL	4	pt/a	4	pt/a	SPRING B									
7	FINESSE	75	WG	0.0234	lb ai/a	0.5	oz/a	SPK-3LF A		0.0 a	0.0 a	6.7 b	5.0 bc	81.7 a	95.7 a	69.3 a	99.0 a
7	SENCOR	75	WG	0.14	lb ai/a	3	oz/a	SPK-3LF A									
7	ACTIVATOR 90	100	SL	0.5	% v/v	0.5	% v/v	SPK-3LF A									
7	28% UAN	100	SL	4	pt/a	4	pt/a	SPK-3LF A									
8	POWERFLEX	7.5	WG	0.0164	lb ai/a	3.5	oz/a	SPRING B				10.0 ab	6.7 bc			60.0 ab	90.0 a
8	ACTIVATOR 90	100	SL	0.5	% v/v	0.5	% v/v	SPRING B									
8	28% UAN	100	SL	4	pt/a	4	pt/a	SPRING B									
9	AXIAL XL	0.42	EC	0.054	lb ai/a	16.4	fl oz/a	SPRING B				0.0 c	0.0 c			0.0 c	0.0 c
10	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	SPRING B				10.0 ab	8.3 b			53.3 ab	86.7 a
10	ACTIVATOR 90	100	SL	0.5	% v/v	0.5	% v/v	SPRING B									
10	28% UAN	100	SL	4	pt/a	4	pt/a	SPRING B									
LSD (P=.05)										0.00	0.00	5.11	7.53	14.82	30.08	32.04	22.38
Replicate F										0.000	0.000	0.375	2.250	1.025	4.097	28.794	2.244
Replicate Prob(F)										1.0000	1.0000	0.6925	0.1342	0.3936	0.0502	0.0001	0.1348
Treatment F										0.000	0.000	13.125	7.692	36.435	12.370	5.705	24.483
Treatment Prob(F)										1.0000	1.0000	0.0001	0.0001	0.0001	0.0005	0.0009	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

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Pest Code	POAAN	POAAN	POAAN
Crop Code			
Rating Date	4-5-11	4-19-11	5-3-11
Rating Data Type	Control	Control	Control
Rating Unit	Percent	Percent	Percent
Rating Timing	0 DAB	14 DA-B	35 DA-B
Trt-Eval Interval	158 DA-A	172 DA-A	186 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	NONTREATED									0.0 c	0.0 e	0.0 f
2	AXIOM	68	WG	0.255	lb ai/a	6	oz/a	SPK-3LF A		85.0 ab	90.0 b	89.3 c
3	AXIOM	68	WG	0.425	lb ai/a	10	oz/a	SPK-3LF A		95.7 a	96.0 a	91.7 bc
4	OSPREY	4.5	WG	0.0134	lb ai/a	4.76	oz/a	SPRING B			89.3 b	97.3 a
4	ACTIVATOR 90	100	SL	0.5	% v/v	0.5	% v/v	SPRING B				
4	28% UAN	100	SL	4	pt/a	4	pt/a	SPRING B				
5	AXIOM	68	WG	0.255	lb ai/a	6	oz/a	SPK-3LF A		76.7 b	92.3 ab	98.0 a
5	OSPREY	4.5	WG	0.0134	lb ai/a	4.76	oz/a	SPRING B				
5	ACTIVATOR 90	100	SL	0.5	% v/v	0.5	% v/v	SPRING B				
5	28% UAN	100	SL	4	pt/a	4	pt/a	SPRING B				
6	AXIOM	68	WG	0.425	lb ai/a	10	oz/a	SPK-3LF A		93.0 a	93.0 ab	93.7 abc
6	OSPREY	4.5	WG	0.0134	lb ai/a	4.76	oz/a	SPRING B				
6	ACTIVATOR 90	100	SL	0.5	% v/v	0.5	% v/v	SPRING B				
6	28% UAN	100	SL	4	pt/a	4	pt/a	SPRING B				
7	FINESSE	75	WG	0.0234	lb ai/a	0.5	oz/a	SPK-3LF A		86.7 ab	91.7 ab	91.3 bc
7	SENCOR	75	WG	0.14	lb ai/a	3	oz/a	SPK-3LF A				
7	ACTIVATOR 90	100	SL	0.5	% v/v	0.5	% v/v	SPK-3LF A				
7	28% UAN	100	SL	4	pt/a	4	pt/a	SPK-3LF A				
8	POWERFLEX	7.5	WG	0.0164	lb ai/a	3.5	oz/a	SPRING B			82.3 c	80.0 d
8	ACTIVATOR 90	100	SL	0.5	% v/v	0.5	% v/v	SPRING B				
8	28% UAN	100	SL	4	pt/a	4	pt/a	SPRING B				
9	AXIAL XL	0.42	EC	0.054	lb ai/a	16.4	fl oz/a	SPRING B			10.0 d	8.3 e
10	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	SPRING B			88.3 b	95.3 ab
10	ACTIVATOR 90	100	SL	0.5	% v/v	0.5	% v/v	SPRING B				
10	28% UAN	100	SL	4	pt/a	4	pt/a	SPRING B				
LSD (P=.05)										13.03	5.05	4.44
Replicate F										1.730	1.812	3.003
Replicate Prob(F)										0.2264	0.1918	0.0749
Treatment F										77.089	455.053	629.134
Treatment Prob(F)										0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

Trial Comments

1. Protocol: Bayer (WM1).
2. Ratings: CI+WC at 21 DA-A, and at 0, 14, 35 and 60 DA-B.
3. Special mixing instructions; treatment 8 Powerflex, use the 7.5% formulation.